

**Claims:**

1. – 3. Canceled.

4. (Presently amended) A method of detecting or monitoring the activity of PPARdelta in a host comprising quantifying the mRNA and/or protein expression level of PDK4.

5. (Presently amended) A method according to claim 4 comprising the step of determining the mRNA and/or protein expression level of PDK4 relative to a control.

6. (Presently amended) A method of determining whether a test compound modulates PPARdelta activity in a host comprising.

a.) exposing the host to the test compound and

b.) quantifying the mRNA and/or protein expression level of PDK4.

7. (Presently amended) A method according to claim 6 comprising determining the mRNA and/or protein expression level of PDK4 relative to a control.

8. (Presently amended) A method for monitoring treatment of patients suffering from a disease associated with dysregulation of PPARdelta activity, comprising the steps of

a.) purifying RNA from muscle cells isolated from patients treated with a modulator of PPARdelta activity and

b.) measuring the mRNA and/or protein expression of PDK4.

9. (Presently amended) A method according to claim 8 comprising determining the mRNA and/or protein expression level of PDK4 relative to a control.

10. -22. Canceled.